=> d 13 L3 HAS NO ANSWERS L3 STR

VAR G1=2/1/6/5 NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 1

NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

=> s 13 ful FULL SEARCH INITIATED 12:42:46 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 16978 TO ITERATE

100.0% PROCESSED 16978 ITERATIONS

SEARCH TIME: 00.00.01

237 SEA SSS FUL L3

237 ANSWERS

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=> s 15
            23 L5
L6
=> s 16 and py<=1999
      19718998 PY<=1999
             5 L6 AND PY<=1999
L7
=> d bib abs hitstr 1-5
     ANSWER 1 OF 5 CAPLUS COPYRIGHT 2003 ACS
L7
     1998:392148 CAPLUS
AN
DN
     129:54367
     Substituted pyrazolyl benzenesulfonamides for the treatment of
TI
     inflammation
     Talley, John J.; Penning, Thomas D.; Collins, Paul W.; Rogier, Donald J.,
IN
     Jr.; Malecha, James W.; Miyashiro, Julie M.; Bertenshaw, Stephen R.;
     Khanna, Ish K.; Graneto, Matthew J.; Rogers, Roland S.; Carter, Jeffery
     S.; Docter, Stephen H.; Yu, Stella S.
     G.D. Searle & Co., USA
PA
     U.S., 55 pp., Cont.-in-part of U.S. 5,521,207.
SO
     CODEN: USXXAM
DT
     Patent
LΑ
     English
FAN.CNT 4
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                             -----
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                             19980602
                                            US 1996-648113
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PΙ
     US 5760068
                       Α
     US 5466823
                       Α
                             19951114
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     US 5521207
                       Α
                             19960528
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                                            WO 1994-US12720 19941114 <--
     WO 9515316
                       · A1
                             19950608
             AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES,
                                                                          FI,
             GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG,
             MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA,
             US, US
         RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU,
             MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,
             TD, TG
     US 6156781
                       Α
                             20001205
                                            US 1999-449076
                                                              19991124
     US 6413960
                       В1
                             20020702
                                            US 2000-609011
                                                              20000530
                             20021210
                                            US 2002-125325
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     US 6492411
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PRAI US 1993-160594
                       A2
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                       A2
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     WO 1994-US12720
                       W
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     US 1996-648113
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     US 1999-449076
                             19991124
                       A1
     US 2000-609011
                       A2
                             20000530
     MARPAT 129:54367
os
GI
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A class of pyrazolyl benzenesulfonamide compds. is described for use in treating inflammation and inflammation-related disorders. Several methods of such treatment are claimed, using various subsets of the title compds., e.g., I [R1 = Ph substituted by .gtoreq.1 halo, C1-10 alkyl, or sulfamyl; R2 = H, haloalkyl, alkoxycarbonyl, cyano, carboxy, aminocarbonyl, alkylaminocarbonyl, carboxyalkyl, aminocarbonylalkyl, hydroxyalkyl, etc.; R3 = H, alkyl, cyano, alkoxy, hydroxyalkyl, alkylthio, alkylsulfonyl, halo; R4 = (un) substituted aralkenyl, aryl, cycloalkyl, cycloalkenyl, heterocyclyl; with numerous provisos]. Claims also cover use of the compds. in treatment of arthritis, pain, and fever, as well as prevention of colorectal cancer. Over 260 synthetic examples are described. For instance, condensation of 4'-methylacetophenone with Et trifluoroacetate gave 94% yield of crude CF3COCH2COC6H4Me-4. This underwent cyclocondensation with 4-H2NSO2C6H4NHNH2.HCl in refluxing EtOH to give 46% yield of title compd. II. The compds. typically showed high selectivity for inhibition of human cyclooxygenase (COX) II over COX I. Selected compds. gave 2-49% inhibition in the carrageenin-induced rat paw edema test at 10-30 mg/kg orally.

IT 170571-66-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of pyrazolylbenzenesulfonamides as antiinflammatories)

RN 170571-66-1 CAPLUS

Benzenesulfonamide, 4-[5-benzo[b]thien-5-yl-3-(trifluoromethyl)-1H-pyrazol-CN 1-yl]- (9CI) (CA INDEX NAME)

RE.CNT THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 5 CAPLUS COPYRIGHT 2003 ACS L7 ΑN 1995:995026 CAPLUS

```
DN
     124:117307
     Preparation of isoxazole derivatives as herbicides
TI
     Geach, Neil; Hawkins, David William; Pearson, Christopher John; Smith,
IN
     Philip Henry Gaunt; White, Nicolas
     Rhone-Poulenc Agriculture Ltd., UK
PA
so
     PCT Int. Appl., 44 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                      KIND
                            DATE
                                           APPLICATION NO.
                                                            DATE
                                           ______
                            19950921
                                           WO 1995-EP951
     WO 9525105
                       A1
                                                             19950314 <--
PΙ
         W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, KG, KP, KR,
             KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU, SG, SI,
             SK, TJ, TT, UA, UG, US, UZ, VN
         RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
             LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
             SN, TD, TG
     AU 9518943
                            19951003
                                           AU 1995-18943
                                                             19950314 <--
                            19940317
PRAI GB 1994-5234
     WO 1995-EP951
                            19950314
OS
     MARPAT 124:117307
GI
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The title isoxazoles I [Ar represents a monocyclic or fused bicyclic AB heterocyclic system Het having a non-pyridyl heterocyclic first ring and an optional second heterocyclic or carbocyclic ring, the second ring when present being fused to the first ring, the first ring having from 1 to 4 hetero ring atoms and from 4 to 7 total ring atoms, the first ring being arom. or non-arom. and being optionally substituted by from 1 to 4 R2 groups which may be the same or different, the second ring being optionally substituted by from 1 to 4 R2 groups which may be the same or different; R represents the hydrogen atom or a group CO2R3; R1 represents a straight- or branched-chain alkyl group contg. from one to six carbon atoms which is optionally substituted by one or more halogen atoms; or a cycloalkylgroup contg. from three to six carbon atoms optionally substituted by one or more groups selected from R4, CO2R4, SR4, halogen and OR4; R2 represents a halogen atom, a straight- or branched-chain alkyl group contg. from one to six carbon atoms which is substituted by a group OR4; or a group selected from OH, R4, etc.; a proviso is given; R3 and R4 each represents alkyl, alkenyl, etc.] are claimed. 4-Cyclopropylcarbonyl-5-(2,2-difluoro-1,3-benzodioxol-4-yl)isoxazole (prepn. given) at 4 Kg/ha pre- or post-emergence gave 90% control of one or more weed species (Abutilon theophrasti, Avena fatua, etc.).

IT 172967-39-4P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of isoxazole derivs. as herbicides)

RN 172967-39-4 CAPLUS

CN Methanone, [5-(4-chloro-1,1-dioxido-3-methoxybenzo[b]thien-7-yl)-4isoxazolyl]cyclopropyl- (9CI) (CA INDEX NAME)

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ANSWER 3 OF 5 CAPLUS COPYRIGHT 2003 ACS
L7
AN
     1995:931246 CAPLUS
DN
     123:340112
     Preparation of pyrazolylbenzenesulfonamides as antiinflammatories.
ΤI
     Talley, John J.; Penning, Thomas D.; Collins, Paul W.; Rogier, Donald J.,
IN
     Jr.; Malecha, James W.; Miyashiro, Julie M.; Bertenshaw, Stephen R.;
     Khanna, Ish K.; Granets, Matthew J.; et al.
     G. D. Searle and Co., USA
PA
     PCT Int. Appl., 254 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LА
     English
FAN.CNT 4
     PATENT NO.
                       KIND
                             DATE
                                              APPLICATION NO.
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PΙ
                        A1
                              19950608
                                             WO 1994-US12720 19941114 <--
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             MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA,
             US, US
         RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU,
             MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,
              TD, TG
                                              US 1993-160594
     US 5466823
                        Α
                              19951114
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                                                                19940406 <--
     US 5521207
                        Α
                              19960528
                                              US 1994-223629
                              19950619
                                              AU 1995-11714
                                                                19941114 <--
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                        Α1
     AU 690609
                        B2
                              19980430
                                              EP 1995-902444
                                                                19941114 <--
     EP 731795
                        Α1
                              19960918
     EP 731795
                        В1
                              19991222
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
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     RU 2139281
     AT 187965
                        Ε
                              20000115
                                              AT 1995-902444
                                                                19941114
     JP 3025017
                        B2
                              20000327
                                              JP 1995-515611
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     JP 09506350
                        T2
                              19970624
                                              PL 1994-314695
                                                                19941114
     PL 180717
                        В1
                              20010330
     TW 418193
                        В
                              20010111
                                              TW 1995-84104854 19950516
                        В
                              20011211
                                              TW 2000-89104784 19950516
     TW 467900
     FI 9602249
                        Α
                              19960529
                                              FI 1996-2249
                                                                19960529 <--
                                              NO 1996-2184
     NO 9602184
                                                                19960529 <--
                        Α
                              19960529
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                                              US 1996-648113
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     US 6156781
                        Α
                                              US 2000-609011
                                                                20000530
     US 6413960
                        В1
                              20020702
                                              US 2002-125325
                                                                20020417
     US 6492411
                        В1
                              20021210
PRAI US 1993-160594
                        A2
                              19931130
     US 1994-223629
                        A2
                              19940604
     WO 1994-US12720
                        W
                              19941114
     US 1996-648113
                        A1
                              19960906
     US 1997-957345
                        B1
                              19971024
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US 1999-449076 A1 19991124 US 2000-609011 A2 20000530

OS MARPAT 123:340112

GI For diagram(s), see printed CA Issue.

Title compds. [I; R1 = (substituted) (hetero)aryl; R2 = H, alkyl, AB haloalkyl, alkoxycarbonyl, cyano, NO2, cyanoalkyl, carboxyl, aminocarbonyl, alkylaminocarbonyl, carboxyalkylaminocarbonyl, carboxyalkyl, aralkoxycarbonylalkylaminocarbonyl, aminocarbonylalkyl, alkoxycarbonylcyanoalkenyl, hydroxyalkyl etc.; R3 = H, alkyl, cyano, NO2, formyl, cyanoamidino, hydroxyalkyl, cycloalkyl, alkylsulfonyl, halo, heterocyclyl, heterocyclylalkyl, etc.; R4 = (substituted) aralkenyl, aryl, cycloalkyl, cycloalkenyl, heterocyclyl; R3R4 = Q1; m = 1-3; A = Ph, 5-6 membered heterocyclyl; R6 = halo, alkylthio, alkylsulfinyl, alkylsulfonyl, cyano, carboxyl, aminocarbonyl, sulfamyl, NO2, acylamino, etc.; provided R2 and R3 do not both = H, carboxy, ethoxycarbonyl; further provided that R2 .noteq. carboxyl, Me when R3 = H and when R4 is Ph; further provided that R4 .noteq. triazolyl when R2 = Me; further provided that R4 .noteq. aralkenyl when R2 = carboxyl, aminocarbonyl, ethoxycarbonyl; further provided that R4 .noteq. Ph when R2 = Me and R3 = carboxyl; and further provided that R4 .noteq. unsubstituted thienyl when R2 = trifluoromethyl], were prepd. Thus, F3CCO2Et in MeOCMe3 was treated with 25% NaOMe and then 4'-chloroacetophenone followed by stirring overnight to give 85% 4,4,4-trifluoro-1-(4-chlorophenyl)butane-1,3-dione. The latter was refluxed with 4-sulfonamidophenylhydrazine hydrochloride in EtOH to give title compd. (II). II inhibited human cyclooxygenase II and I with ID50 = <.1 .mu.M and 18 .mu.M, resp.

IT 170571-66-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyrazolylbenzenesulfonamides as antiinflammatories)

RN 170571-66-1 CAPLUS

CN Benzenesulfonamide, 4-[5-benzo[b]thien-5-yl-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

L7 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2003 ACS

AN 1991:81573 CAPLUS

DN 114:81573

TI Preparation of pyrrolidine derivatives as dopamine agonists

IN Yamanaka, Motosuke; Hoshiko, Tomonori; Suda, Shinji; Yoneda, Naoki; Mori, Nobuyuki; Shino, Mitsumasa; Ishihara, Hiroki; Saito, Mamoru; Matsuoka, Toshiyuki

PA Eisai Co., Ltd., Japan

SO Eur. Pat. Appl., 64 pp.

CODEN: EPXXDW

LΑ	Patent English CNT 1								
	PATENT NO.	KIND DATE			APF	PLICATION NO.	DATE		
PI	EP 381235	A2			EP	1990-102102	19900202	<	
	EP 381235								
	EP 381235	B1	19930728						
		CH, DE, DK, ES, F			•		•		
	JP 03118361				JP	1989-254349	19890929	<	
		B2	19990803						
		Α				1990-468147			
	NO 9000417				NO	1990-417	19900130	<	
	NO 173988	В							
	NO 173988								
	AU 9049013		19901101		AU	1990-49013	19900201	<	
		B2	19920206						
	CA 2009162					1990-2009162			
	JP 02288855		19901128		JP	1990-25314	19900202	<	
	JP 2928307		19990803						
	HU 53867	A2	19901228			1990-654			
	AT 92043	E	19930815			1990-102102			
	ES 2058620		19941101			1990-102102			
		C1	19941215			1990-4743218			
	CN 1044652	Α			CN	1990-100521	19900203	<	
PRAI	JP 1989-25262								
	JP 1989-254349		19890929						
	EP 1990-102102	_	19900202						
os	MARPAT 114:8157	3							
GI									

AB The title compds. I [X = H, halo, alkyl; Y = (CH2)n, O, NH, etc.; n = 0-2; R = (substituted) Ph, naphthyl, heteroaryl] were prepd. A mixt. of pyrrolidine trans-II (R1 = R2 = Me) (prepn. given) and BBr3 in CH2Cl2 was stirred at room temp. for 3 h to give trans-II.HBr (R1 = R2 = H). In an in vitro D1 receptor binding test using the striatum of rats and 3H-Sch23390, the compd. trans-3-(3,4-dihydroxyphenyl)-4-phenylpyrrolidine HBr salt exhibited IC50 of 4.80 .times. 10-6 M; the D2 value was 88 .times. 10-6 M. Addnl. cardiohemodynamic data are given.

IT 131781-92-5P 131781-93-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of, as dopamine agonist)

RN 131781-92-5 CAPLUS

CN 1,2-Benzenediol, 4-(4-benzo[b]thien-4-yl-3-pyrrolidinyl)-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 131781-93-6 CAPLUS

CN 1,2-Benzenediol, 4-(4-benzo[b]thien-7-yl-3-pyrrolidinyl)-, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L7 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2003 ACS

AN 1991:6530 CAPLUS

DN 114:6530

TI 4,5-Dihydro-6-(benzoheterocyclyl or thiazolylphenyl)-3(2H)-pyridazinone derivatives as cardiotonics

IN Nomoto, Yuji; Takai, Haruki; Ono, Tetsuji; Kubo, Kazuhiro

PA Kyowa Hakko Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

GI ,

PATENT NO. KIND DATE APPLICATION NO. DATE

PI JP 02193994 A2 19900731 JP 1989-13365 19890123 <-PRAI JP 1989-13365 19890123
OS MARPAT 114:6530

$$0 = \bigvee_{R1}^{H} \bigcap_{R^2} \bigcap_{R^3} \bigcap_{R^3} \bigcap_{R^4} \bigcap_{R^4} \bigcap_{R^4} \bigcap_{R^4} \bigcap_{R^5} \bigcap_{R^5} \bigcap_{R^6} \bigcap_{R^7} \bigcap_{R^8} \bigcap_{R^$$

The title derivs. I (R1 = H, lower alkyl; R2 = Q, Q1, Q2, Q3, Q4; R3 = SH, lower alkylthio, arylthio, lower alkylsulfinyl, arylsulfinyl, lower alkylsulfonyl, arylsulfonyl; R4, R5 = H, lower alkyl; R6 = H, lower alkyl, NH2; R7 = lower alkyl, lower alkoxycarbonyl; R8 = H, lower alkanoyl, lower alkoxycarbonyl) and their pharmacol. acceptable salts are prepd. A mixt. of 3-(4-chloro-3-nitrobenzoyl) butyric acid, Na2S.9H2O, and H2O was stirred at 130.degree. for 24 h and the resulting amino deriv. in DMF was treated with CS2 at 60.degree. for 3 h, then H2NNH2.H2O in AcOH at 100.degree. for 3 h to give 47% I (R1 = Me, R2 = Q, R3 = SH) (II). A MeOH suspension of II was treated with NaOH and MeI at room temp. for 20 min to give 62% I (R1 = Me, R2 = Q, R3 = SMe), which as well as II increased myocardiac contractility in dogs by 59.0.+-.8.5% max. (percentage increase in dp/dt of left ventricular pressure) at 0.03 mg/kg i.v.

## IT 130818-90-5P

RN

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as cardiotonic)

130818-90-5 CAPLUS

CN Benzo[b]thiophene-2-carboxylic acid, 3-amino-6-(4,5-dihydro-4-methyl-5-oxo-1H-pyrazol-3-yl)-, ethyl ester (9CI) (CA INDEX NAME)

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=> s 16 not 17
L8
            18 L6 NOT L7
=> d bib abs 1-18
     ANSWER 1 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
     2003:117630 CAPLUS
AN
     138:170246
DN
     Preparation of N3-substituted 6-anilinopyrimidines to treat Gram-positive
ΤI
     bacterial and mycoplasmal infections
     Zhi, Chengxin; Long, Zheng-Yu; Wright, George E.; Brown, Neal C.
IN
     University of Massachusetts, USA; Shire Biochem Inc.
PΑ
     PCT Int. Appl., 87 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
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                                           APPLICATION NO.
     WO 2003011297
                                           WO 2002-US19398 20020617
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US,
             UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
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PRAI US 2001-298357P
                       Ρ
                            20010615
     US 2002-348420P
                       Ρ
                            20020114
     MARPAT 138:170246
os
GI
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The title compds. [I; R1 = (CH2)m[An(CH2)p]qB (wherein A = CH2, CH:CH, CO, etc.; B = H, halo, alkyl, etc.; m = 1-4; n = 0-1; p = 0-4; q = 0-4); R2, R3 = alkyl, alkenyl, halo; or R2 and R3 together are alkylene; with the provisos], useful for treating Gram-pos. bacterial and mycoplasmal infections, were prepd. Thus, reacting 6-amino-2-methoxy-3-[2-(2-benzyloxyethoxy)ethyl]-4-pyrimidone with 3-ethyl-4-methylaniline.HCl afforded 72% I [R1 = (CH2)2O(CH2)2OCH2Ph; R2 = Et; R3 = Me] which showed MIC of 5 .mu.g/mL against S. aureus and E. fecalis.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2003 ACS

AN 2002:615612 CAPLUS

DN 137:169516

TI Preparation of dihydropyrazolopyridines and pharmaceutical use based on strong and selective inhibition of glycogen synthase kinase-3 beta

IN Kohara, Toshiyuki; Fukunaga, Kenji; Fujimura, Masatake; Hanano, Tokushi; Okabe, Hirotaka

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Mitsubishi Pharma Corporation, Japan
PΑ
SO
    PCT Int. Appl., 228 pp.
     CODEN: PIXXD2
DT
    Patent
    English
LΑ
FAN.CNT 1
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                                                            DATE
                            DATE
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                       A2
                            20020815
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
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             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                            20010202
PRAI JP 2001-26379
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     JP 2001-81238
                       Α
     JP 2001-304707
                            20010928
                       Α
    MARPAT 137:169516
os
GI
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The present invention provides dihydropyrazolopyridine compds. (I; e.g. Et 4-(2-chloro-3-trifluoromethylphenyl)-4,7-dihydro-6-propyl-2H-pyrazolo[3,4-b]pyridine-5-carboxylate), wherein each symbol is as defined in the specification, optically active forms thereof, and pharmaceutically acceptable salts thereof and hydrates thereof. The compds. of the present invention show a selective and strong inhibitory activity on glycogen synthase kinase-3 beta (GSK-3.beta.), and are useful as medicaments for prevention and/or treatment of diabetes, diabetic complications and neurodegenerative diseases or as immunopotentiators. GSK-3.beta.-inhibitory activity, GSK-3.beta.-inhibitory activity in rat cultured hippocampal neurons, effect on amyloid .beta.-induced cytotoxicity in rat cultured hippocampal neurons, and GSK-3.beta.-inhibitory effect in gerbil brain ischemia model for some I are reported. Although the methods of prepn. are not claimed, 366 example prepns. are included.

L8 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2003 ACS

AN 2002:487558 CAPLUS

DN 137:63260

TI Preparation of heterocyclyl-piperidinyl/piperazinyl-isochromans as CNS agents

IN Agejas-Chicharro, Javier; Bueno Melendo, Ana Belen; Camp, Nicholas Paul; Gilmore, Jeremy; Jimenez-Aguado, Alma Maria; Lamas-Peteira, Carlos; Marcos-Llorente, Alicia; Mazanetz, Michael Philip; Montero Salgado, Carlos; Timms, Graham Henry; Williams, Andrew Caerwyn

PA Eli Lilly and Company, USA

SO PCT Int. Appl., 195 pp.

CODEN: PIXXD2

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DT
     Patent
LΑ
     English
FAN.CNT 1
                                            APPLICATION NO.
                                                             DATE
     PATENT NO.
                      KIND
                            DATE
                                            WO 2001-US45856
                                                             20011219
                       A2
                             20020627
PΙ
     WO 2002050067
     WO 2002050067
                       Α3
                             20021010
            AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES,
             FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
             KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
             MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL,
             TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
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             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                       Α1
                            20020626
                                            GB 2000-31084
                                                             20001220
     GB 2370270
     AU 2002032468
                       A5
                             20020701
                                            AU 2002-32468
                                                             20011219
                             20001220
PRAI GB 2000-31084
                       Α
     WO 2001-US45856
                       W
                             20011219
     MARPAT 137:63260
os
GΙ
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$$H_2N$$
 $N$ 
 $F$ 

Title compds. I [R1 = CN, carboxamide, sulfonamide, heterocyclyl, etc.; R2 = R1, H, alkyl, alkoxy, halo; R3-10, R12 = H, alkyl; R9, R11 = H, alkyl; n = 1-2; p = 0-2; q = 1-2; W-V = CH2-CH, O-CH, S-CH, CH=C; X-Y = N(Z)-CH2, C(Q)(Z)-CH2, C(Z)=CH; Z = benzothiophenyl, benzofuranyl, etc.] were prepd. Over 100 synthetic examples were provided. For instance, 6-Fluoro-3-(1,2,3,6-tetrahydropyridin-4-yl)-1H-indole (prepn. given) was reacted with 2-[6-(aminocarbonyl)-3,4-dihydro-1H-2-benzopyran-1-yl]ethyl methanesulfonate (prepn. given) to afford II as a yellow solid. I are useful for treating central nervous system disorders (no data).

II

L8

2001:472712 CAPLUS ΑN DN 135:76800 Azabicyclo[3.2.1]octane derivatives with activity as serotonin reuptake ΤI inhibitors and 5-HT1A antagonists, and their use as antidepressants. He, John Xiaoqiang; Honigschmidt, Nicholas Allan; Kohn, Todd Jonathan; IN Rocco, Vincent Patrick; Spinazze, Patrick Gianpietro; Takeuchi, Kumiko PA Eli Lilly and Co., USA SO PCT Int. Appl., 97 pp. CODEN: PIXXD2 Patent DT LΑ English FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE A1 WO 2000-US32431 WO 2001046187 20010628 ΡI AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 2000-982253 20001206 EP 1242419 20020925 A1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR PRAI US 1999-172610P 19991220 Ρ 20001206 WO 2000-US32431 W OS MARPAT 135:76800 GΙ

AB The invention provides compds. of formula I (A = H, OH, alkoxy; B = (un)substituted benzothienyl, benzofuranyl, indolyl, benzothiazolyl, benzimidazolyl, benzoxazolyl, quinolinyl, phthalazinyl, naphthalenyl, or benzo(h)quinolinyl; X = H, OH, alkoxy, or is absent; Y = CH2, NH, or S; R1

II

= H, F, alkyl, CONH2 or (di)alkyl derivs., cyano; R2 = H, F, Cl, Br, iodo, OH, alkyl, or alkoxy; p = 0-4; q = 0-3] and their pharmaceutically acceptable salts. The compds. are potent serotonin reuptake inhibitors and antagonists of 5-HT1A receptors (no data). As such, they are expected to be useful for treating depression, anxiety, and alleviating the symptoms caused by withdrawal or partial withdrawal from the use of tobacco or of nicotine. Fourteen synthetic examples and several precursor prepns. are given. For instance, title compd. II was prepd. in 87% yield by reaction of endo-3-(4-methoxybenzo[b]thiophen-2-yl)-8azabicyclo[3.2.1]octane (prepn. given) with (S)-4-(oxiranylmethoxy)indole in refluxing MeOH.

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 8 ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L8
     ANSWER 5 OF 18 CAPLUS COPYRIGHT 2003 ACS
AN
     2001:472706 CAPLUS
DN
     135:76793
ΤI
     Preparation of (2-hydroxy-3-piperidinylpropoxy) indole derivatives as
     serotonin reuptake inhibitors for the treatment of depression and anxiety
     Hansen, Marvin Martin; He, John Xiaoqiang; Honigschmidt, Nicholas Allan;
IN
     Koch, Daniel James; Kohn, Todd Jonathan; Rocco, Vincent Patrick; Spinazze,
     Patrick Gianpietro; Takeuchi, Kumiko
PA
     Eli Lilly and Company, USA
     PCT Int. Appl., 279 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
                     KIND
                           DATE
                                           APPLICATION NO.
     PATENT NO.
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                                          WO 2000-US32430 20001206
PΙ
     WO 2001046181
                     A1
                            20010628
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          EP 2000-982252 20001206
     EP 1242411
                      A1
                            20020925
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 1999-172748P
                            19991220
                       Ρ
                            20001206
     WO 2000-US32430
                       W
     MARPAT 135:76793
OS
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GI

Title compds. (I) [wherein A = H or OH; B = (un)substituted benzothiophenyl, benzofuranyl, indolyl, benzothiazolyl, benzimidazolyl, benzoxazolyl, quinolinyl, quinoxalinyl, naphthyl, and benz[h]quinolinyl; X = H, OH, alkoxy, or null; R1 = H, F, alkyl, (un)substituted carbamoyl, or CN; R2 = H, halo, OH, alkyl, or alkoxy; R3 and R5 = independently H or alkyl; m and n = independently 0-2; p = 0-4; q = 0-3; or pharmaceutically acceptable salts thereof] were prepd. as serotonin reuptake inhibitors. For example, (S)-glycidyl nosylate was coupled with 4-hydroxy-2-methylindole (77%) and the (2S)-4-glycidyloxy-2-methylindole coupled with (cis)-4-(6-methoxybenzo[b]thiophen-2-yl)-2-methypiperidine to give (-)-II (34%). I are useful as 5-HT1A and 5-HT2A receptor antagonists for the treatment of depression, anxiety, and alleviating the symptoms caused by withdrawal from tobacco or nicotine use (no data).

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 6 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
     2001:472674 CAPLUS
AN
DN
     135:76798
     Process for preparation of 4-substituted piperidines by reduction of
TI
     N-protected 4-hydroxypiperidines.
     Hansen, Marvin Martin; Heath, Perry Clark; Keast, Sandra Sabol
IN
     Eli Lilly and Company, USA
PΑ
     PCT Int. Appl., 32 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 2
                                                APPLICATION NO. DATE
     PATENT NO.
                         KIND
                               DATE
                               -----
                                                -----
                         ----
                                                WO 2000-US32429 20001206
ΡI
     WO 2001046147
                         Α1
                               20010628
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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              HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
              LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
              SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
              YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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20021002
                                           EP 2000-982251
                                                            20001206
     EP 1244623
                       A1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                            19991220
PRAI US 1999-172716P
                     P
                            19991220
     US 1999-172724P
                      P
                      W
                            20001206
     WO 2000-US32429
     CASREACT 135:76798; MARPAT 135:76798
os
GI
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N-protected-4-substituted piperidines [I; Pg = protecting group; X = AB (substituted) heterocyclyl, alkenyl, aryl; R1-R8 = alkyl, alkenyl, cycloalkyl, (substituted) aryl, heterocyclyl], were prepd. by treatment of tertiary alcs. (II; variables as above) with Et3SiH and CF3CO2H. Thus, 1-(tert-butoxycarbonyl)-4-(3-methyl-2-trimethylsilylbenzo[b]thiophen-5yl)piperidin-4-ol (prepn. given) in CH2Cl2 was treated with Et3SiH; the mixt. was cooled to -30.degree. and treated with CF3CO2H followed by treatment with addnl. CF3CO2H and warming to room temp. over 3.5 h to give 92.8% 4-(3-methylbenzo[b]thiophen-5-yl)piperidine hydrochloride.

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 2 ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 7 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
    2001:472670 CAPLUS
AN
    135:76797
DN
    A process for preparing trans-2,4-disubstituted piperidines
ΤI
    Godfrey, Alexander Glenn; Pedersen, Steven Wayne
IN
PA
    Eli Lilly and Company, USA
SO
     PCT Int. Appl., 26 pp.
     CODEN: PIXXD2
DT
     Patent
    English
LA
FAN.CNT 2
                                          APPLICATION NO. DATE
                     KIND DATE
     PATENT NO.
                     -----
                     A1 20010628
    WO 2001046143
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                                          WO 2000-US32428 20001206
PΙ
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             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                         EP 2000-980848 20001206
                           20021002
                       A1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 1999-172724P
                            19991220
                      P
     WO 2000-US32428
                       W
                            20001206
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os CASREACT 135:76797; MARPAT 135:76797

GI

CASREACT 135:76796; MARPAT 135:76796

os GI

Title compds. I (R = alkyl; X = alkyl, alkenyl, cycloalkyl, aryl, AB heterocyclyl) were prepd. by treating 4-X-substituted 1-chloropiperidines with a crown ether, a base, and RM, where M is a cation. Thus, 13.9 g II in 207 mL THF was treated with 1.0 g 18-crown-6 and 10.16 g KOH in 4 mL water to give an imine, which reacted with 260 mmol MeLi in Et2O at -10.degree. and then at ambient temp. to give, after treatment with NaBH4 and pivalic anhydride in MeOH-THF, a 63% yield of III.

THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

```
ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 8 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
ΑN
     2001:472669 CAPLUS
     135:76796
DN
     Process for the regioselective synthesis of 2,2-dialkyl-4-substituted
ΤI
     piperidines from N-halopiperidines and alkylmetals.
     Heath, Perry Clark
IN
     Eli Lilly and Company, USA
PA
     PCT Int. Appl., 27 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
                                          APPLICATION NO.
                                                          DATE
     PATENT NO.
                      KIND
                           DATE
                                           _____
                            _____
                                           WO 2000-US32424 20001206
     WO 2001046142
                      A1
                            20010628
ΡI
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                         EP 2000-982250 20001206
     EP 1242377
                      A1
                          20020925
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 1999-172722P
                     P
                            19991220
                            20001206
     WO 2000-US32424
                      W
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$$\begin{array}{c|cccc}
H & R^1 & & C^1 & R^1 \\
\hline
N & R^2 & & & X & II
\end{array}$$

Title compds. [I; R1, R2 = alkyl; X = alkyl, alkenyl, cycloalkyl, AB (substituted) aryl, heterocyclyl], were prepd. by sequential treatment of monoalkylated compds. (II; Q = Cl, Br; R1, X as above) with base, Lewis acid, and R-M+ (M+ = suitable cation). Thus, cis-N-chloro-4-(4methoxybenzo[b]thiophen-2-yl)-2-methylpiperidine (prepn. given) was stirred 17 h with DBU in THF to give 99% 4-(4-methoxybenzo[b]thiophen-2yl)-2-methyl-3,4,5,6-tetrahydropyridine. The latter in THF at -78.degree. was treated with BF3.Et20 and then with MeLi, followed by stirring for 16 h, to give 30% 2,2-dimethyl-4-(4-methoxybenzo[b]thiophen-2-yl)piperidine.

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 4 ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
L8
    ANSWER 9 OF 18 CAPLUS COPYRIGHT 2003 ACS
AN
     2001:453057 CAPLUS
     135:61243
DN
     Synthesis, use and herbicidal activity of chroman and thiochroman metal
ΤI
     chelates
    Haley, Gregory J.; Dexter, Robin W.; Szucs, Stephen S.; Rajamoorthi,
IN
     Kannan
     Basf Corporation, USA; Basf Aktiengesellschaft; Idemitsu Kosan Co., Ltd.
PΑ
     PCT Int. Appl., 39 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                                          ______
     _____
                     _ _ _ _
                           -----
                                          WO 2000-EP11946 20001129
                           20010621
ΡI
     WO 2001044236
                     A1
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
            HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
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SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 19991202 Α

PRAI US 1999-453102

MARPAT 135:61243 os

GΙ

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- Compds. I, their prepn. and use in crop protection are claimed [wherein; G = G1 or G2; M = transition or alk.-earth metal; n = 1, 2 or 3; m = 0 or 1; R1-4 = H, (halo)alkyl or alkoxyalkyl; R7, R8 = H, (cyclo)alkyl or taken together with the atom to which they are attached to form C:O; R5-6, R9, R10 = H, or (cyclo)alkyl; R11 = alk(en)yl or haloalkenyl; R12 = H,

alk(en)yl or alkoxyalkyl; X = 0 or S(0)0-2; Y = (un)substituted-CH2,alkyl, CH(OH) (or derivs.), C:O or oximes; Z = H, halo, (halo)alkyl, alkoxyalkyl or (halo)alkoxy; p = 1, 2 or 3; or tautomers thereof]. Seventeen synthetic examples are described. The synthesis is exemplified by the prepn. of II from the corresponding protonated ligand (III). of zinc acetate dihydrate to a soln. of III in warm acetic acid was followed by heating until the mixt. became homogeneous. Addn. of water resulted in the pptn. of II as a solid. The source of the metal may be a metal halide/acetate/nitrate of formula Mn(X1)n where X1 = Cl, Br, F, I, OAc or NO3; M, n as defined above. Compds. I were formulated as an aq. acetone dispersion contg. various excipients and applied to 8 species of monocotyledonous and dicotyledonous plants and a cereal crop (Zea mays) at concns. of 0.0125 to 0.100 kg/ha to det. herbicidal efficacy. Addnl., herbicidal efficacy of chelates I was compared to the free ligand (e.g. In one of three assays, a comparative postemergence evaluation (18 days applied at 0.050 kg/ha), chelate II was found to give at least 91% control (approaching complete kill) in 6 out of 7 plants with no obsd. effect on the crop (Zea mays). Ligand III provided the same level of control on plants but caused a 16-29% kill of the crop (Zea mays, 2 brands). Application of compds. I to the foliage or soil/water contg. the seeds for the control of undesirable plant species with enhanced cereal crop safety is a claimed use of the invention.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 10 OF 18 CAPLUS COPYRIGHT 2003 ACS

L8

```
2001:247332 CAPLUS
ΑN
DN
     134:280711
     Preparation of 4-(benzothienyl)piperidines as serotonin reuptake
ΤI
     inhibitors
     Kohlman, Daniel Timothy; Liang, Sidney Xi; Xu, Yao-chang
IN
PA
     Eli Lilly and Company, USA
SO
     PCT Int. Appl., 116 pp.
     CODEN: PIXXD2
DT
     Patent
    English
LА
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                           APPLICATION NO. DATE
                           -----
                                           -----
     ______
                     - - <del>-</del> -
                                         WO 2000-US20824 20000914
                           20010405
PΙ
     WO 2001023381
                     A1
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
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             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          BR 2000-14447
     BR 2000014447
                            20020611
                      Α
     JP 2003510322
                       T2
                            20030318
                                           JP 2001-526533
                                                            20000914
PRAI US 1999-157343P
                       Р
                            19990929
                            20000914
     WO 2000-US20824
                       W
     MARPAT 134:280711
os
GI
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W—
$$\left(\begin{array}{c} R6? \\ N-\left[CH_2\right]_n \\ R4 \end{array}\right)$$

The title compds. [I; W = (un)substituted benzothienyl, benzofuranyl; Y = CO, CHOH, CH2, etc.; n = 1-4; R3 = O, OH, hydroxyalkyl, etc.; R4 = (un)substituted aryl, heterocyclyl,cycloalkyl; R5 = (un)substituted aryl, heterocyclyl,cycloalkyl; R6a, R6b = H, alkyl] which inhibit the reuptake of serotonin and antagonize the serotonin receptor, and therefore are useful in alleviating the symptoms caused by withdrawal or partial withdrawal from the use of tobacco or of nicotine, and treating depression, were prepd. and formulated. E.g., a multi-step synthesis of II was given.

Ι

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L8 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2003 ACS
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AN 2001:247331 CAPLUS

DN 134:280710

TI Preparation of benzothienyl-substituted piperidines as serotonin reuptake inhibitors

IN Liang, Sidney Xi; Xu, Yao-chang

PA Eli Lilly and Company, USA

SO PCT Int. Appl., 85 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ----WO 2001023380 20010405 WO 2000-US20823 20000914 ΡI A1 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG BR 2000014668 20020618 BR 2000-14668 20000914 Α EP 1220853 A1 20020710 EP 2000-961329 20000914 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL JP 2001-526532 JP 2003510321 T2 20030318 20000914

PRAI US 1999-156762P P 19990929 WO 2000-US20823 W 20000914 OS MARPAT 134:280710 GI

R1? R1? R6? 
$$N-\left[CH_{2}\right]_{n}^{R3}Y-R5$$
R2

The title compds. [I; X = 0, S; Y = CO, CHOH, CH2, etc.; n = 1-4; Rla, Rlb, Rlc, R2 = H, F, Cl, etc.; R3 = H, OH, hydroxyalkyl, etc.; R4 = aryl, heterocyclyl, cycloalkyl, etc.; R5 = aryl, heterocyclyl, cycloalkyl, etc.; R6a, R6b = H, alkyl] which inhibit the reuptake of serotonin, antagonize the 5-HT1A receptor and antagonize the 5-HT2A receptor, and therefore are useful for alleviating the symptoms caused by withdrawal from the use of tobacco or nicotine, and depression, were prepd. and formulated. E.g., a multi-step synthesis of II was given.

Ι

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 12 OF 18 CAPLUS COPYRIGHT 2003 ACS

AN 2001:101133 CAPLUS

DN 134:162912

TI Preparation and use of serotonergic benzothiophenes

IN Briner, Karin; Burkholder, Timothy Paul; Conway, Richard Gerard; Cunningham, Brian Eugene; Finley, Don Richard; Heinz, Lawrence Joseph; Jesudason, Cynthia Darshini; Kohlman, Daniel Timothy; Liang, Sidney Xi; Xu, Yao-chang

PA Eli Lilly and Company, USA; et al.

SO PCT Int. Appl., 89 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2001009126 A1 20010208 WO 2000-US17864 20000721

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 20020515 EP 2000-950264 20000721 EP 1204660 A1 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL JP 2003506371 20030218 JP 2001-514329 20000721 T2 PRAI US 1999-146185P Ρ 19990729 19991220 US 1999-172784P P W 20000721 WO 2000-US17864 MARPAT 134:162912 os GI

Compds. of formula I are reported to increase activation of the 5-HT2c AB receptor [wherein: R is H, halo, trifluoromethyl or alkyl; R1 is as for R, Ph; R2, R3 and R4 are H, halo, trifluoromethyl, cyano, (un) substituted alkyl or monosubstituted amide (where N substituent is alkyl); A is attached at either the 4 or 7 position of the benzothiophene nucleus and is a certain (un) substituted pyrrolidin-3-yl, piperidin-4-yl, tetrahydropyridin-4-yl or homopiperidin-4-yl]. Fifteen examples were provided. II was prepd. by addn. of 1-benzyl-3,3-dimethyl-4-oxopiperidine to a soln. of 7-bromobenzothiophene and tert-butyllithium. The resulting carbinol was deoxygenated and the N-benzyl group removed to provide II as its oxalate salt. Ten solid oral dosage formulations were described. Compds. I were said to have 5-HT2c receptor affinity using a [1251]-DOI assay, and agonist activity in an immunoadsorption scintillation proximity assay. Treatment of depression and obesity are claimed uses for I. THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 8

ANSWER 13 OF 18 CAPLUS COPYRIGHT 2003 ACS L8 ΑN 2001:12453 CAPLUS 134:86148 DN Process for preparation of 7-substituted benzothiophenes ΤI Moher, Eric David; O'Toole, John Cunningham; Rizzo, John Robert; Vicenzi, IN Jeffrey Thomas; Zhang, Tony Yantao Eli Lilly and Company, USA PA PCT Int. Appl., 31 pp. SO CODEN: PIXXD2 DT Patent English LΑ FAN.CNT 1

ALL CITATIONS AVAILABLE IN THE RE FORMAT

APPLICATION NO. DATE PATENT NO. KIND DATE ----WO 2000-US11884 20000621 PΙ WO 2001000620 A2 20010104 WO 2001000620 Α3 20010719 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,

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LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
          SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
               DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
               CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                  20020417
                                                   EP 2000-944592 20000621
     EP 1196413
                           A2
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
               IE, SI, LT, LV, FI, RO
PRAI US 1999-141481P
                          P
                                  19990629
                            W
     WO 2000-US11884
                                  20000621
     MARPAT 134:86148
os
GΙ
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$$R^{1?}$$
 $R^{1?}$ 
 $R^{1}$ 
 $R$ 

The title compds. [I; E = (un)substituted aryl, heterocyclyl, cycloalkyl, alkyl; R1a, R1b, R1c = H, F, Cl, etc.; R1a and R1b together or R1b and R1c together form a (un)satd. carbocyclyl; R2 = H, alkyl, OH, etc.; R3 = H, alkyl, (un)substituted aryl, etc.; R2 and R3 are connected by alkylene], useful as intermediates in the prepn. of pharmaceuticals, were prepd. by treating the thiophenol II with a suitable base, electrophile, and a compd. III [X = a suitable leaving group; Y = OR4; Z = OR5 (wherein R4, R5 = alkyl); or Y and Z together = CO; or Y and Z are both O and are connected by alkylene] followed by addn. of a suitable acid catalyst.

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ANSWER 14 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
ΑN
    2000:790480 CAPLUS
DN
     133:335232
     Preparation of pyrazoles as antiinflammatory agents
TΙ
    Lohray, Vidya Bhushan; Sunil, Kumar Singh; Akella, Venkateswarlu; Lohray,
IN
     Braj Bhushan; Pamulapati, Ganapathi Reddy; Ramanujam, Rajagopalan;
     Parimal, Misra
     Reddy's Research Foundation, India
PA
SO
     PCT Int. Appl., 134 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
                                           APPLICATION NO.
                                                           DATE
     PATENT NO.
                     KIND
                           DATE
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                                          WO 2000-IB556
                                                            20000502
PΤ
     WO 2000066562
                      A1
                            20001109
            AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
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W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BI, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI IN 1999-MA508 A 19990503

OS MARPAT 133:335232

$$R^{1}$$
 $R^{2}$ 
 $R^{2}$ 
 $R^{4}$ 
 $R^{5}$ 
 $R^{6}$ 
 $R^{6}$ 
 $R^{5}$ 
 $R^{6}$ 
 $R^{6$ 

The title compds. [I; R1 = NH2, alkyl, alkylamino, etc.; R2 = CN, NO2, N3, AΒ etc.; R3 = H, halo, OH, etc.; R4-R6 = H, halo, OH, etc.; m = 0-2], useful for the treatment and/or prophylaxis of diseases of cyclooxygenase, more particularly COX-2, were prepd. E.g., a multi-step synthesis of the pyrazole II which showed IC50 of 0.56 .+-. 0.03 (100 .mu.M) against COX-2 vs. IC50 of 264 .+-. 0.5 (100 .mu.M) against COX-1, was given.

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 5 ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 15 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
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AN 2000:384193 CAPLUS

DN 133:30663

Preparation of 8-azabicyclo[3.2.1]oct-2-ene and -octane derivatives as TI cholinergic ligands at the nicotinic Acetyl Choline Receptors (nAChR)

Peters, Dan; Olsen, Gunnar M.; Nielsen, Simon Feldback; Nielsen, Elsebet IN Ostergaard

Neurosearch A/S, Den. PA

PCT Int. Appl., 58 pp. SO

CODEN: PIXXD2

DTPatent

LΑ English

GI

FAN.CNT 1																		
	PATENT NO.			KIND DATE			APPLICATION NO. DATE											
ΡI								WO 1999-DK661										
		W:	ΑE,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,
			CZ,	DE,	DK,	DM,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,
							KG,											
			•	•	•	•	MW,		•	-	-							`
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					•	•	MD,	•	•	•	00,	,	,	,	,	,		
		DW.	GH,			•	-	-	•		тz	ПC	7.W	ידע	BE	CH	CV	DE
		KW:																
							GB,								SE,	Br,	ъυ,	CF,
			•			•	GN,	-										
								CA 1999-2342621 19991126										
	EΡ						EP 1999-973031 19991126											
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	ΝL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO										
	JΡ	2002	5314	56	T:	2	2002	0924		JP 2000-585242 19991126								
							US 2001-864367					20010525 ·						
DDAT				A 19981127														
LICAL																		
00		WO 1999-DK661 W 19991126																
os	MARPAT 133:30663																	

The title compds. [I; R = H, alkyl, alkenyl, etc.; R1 = COR2, (un)substituted mono- or polycyclic aryl, (un)substituted (un)satd. 5-6 membered heterocyclyl, etc.; R2 = H, alkyl, alkenyl, etc.] and their salts which are found to be cholinergic ligands at the nicotinic Acetyl Choline Receptors (no data) and may be useful for the treatment of diseases or disorders as diverse as those related to the cholinergic system of the central nervous system (CNS), diseases or disorders related to smooth muscle contraction, endocrine diseases or disorders, diseases or disorders related to neurodegeneration, diseases or disorders related to inflammation, pain, and withdrawal symptoms caused by the termination of abuse of chem. substances, were prepd. E.g., a 2-step synthesis of (.+-.)-8-azabicyclo[3.2.1]oct-2-ene I.fumarate [R = Me; R1 = 6-methoxy-2-naphthyl] was given. Compds. I may also be useful as radioligands for in vivo receptor imaging (neuroimaging).

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 16 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
ΑN
     2000:15021 CAPLUS
     132:64187
DN
     Preparation of azepine derivatives having effects on serotonin related
ΤI
     systems
     Hauser, Kenneth Lee; Hertel, Larry Wayne; Xu, Yao-Chang
IN
PΑ
     Eli Lilly and Company, USA
SO
     PCT Int. Appl., 112 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
                                           APPLICATION NO.
     PATENT NO.
                      KIND
                            DATE
                                                            DATE
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                                           WO 1999-US14778 19990629
                            20000106
ΡI
     WO 2000000203
                       A1
             AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                       AA
                            20000106
                                            CA 1999-2335310
                                                             19990629
     CA 2335310
     AU 9947277
                       A1
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                                            AU 1999-47277
                                                             19990629
                            20010418
                                           EP 1999-930830
                                                             19990629
     EP 1091741
                       A1
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,
             SI, LT, LV, FI, RO
                            20020702
     JP 2002519326
                                            JP 2000-556788
                                                             19990629
                       T2
     US 6465453
                                            US 2000-701363
                            20021015
                                                             20001128
                       B1
     US 2002193590
                       Α1
                            20021219
                                            US 2002-141424
                                                             20020508
PRAI US 1998-91245P
                       Р
                            19980630
     WO 1999-US14778
                       W
                            19990629
     US 2000-701363
                       A3
                            20001128
     MARPAT 132:64187
os
GΙ
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$$R^2$$
 $X$ 
 $R^6$ ?
 $R^6$ ?
 $CH_2$ 
 $R^3$ 
 $R^4$ 
 $R^6$ 
 $R^4$ 
 $R^6$ 

The title compds. [I; X = O, S, NR, SO, SO2; Y = CO, CH(OH), CH2, etc.; n = 1-4; R = H, alkyl; Rla, Rlb, Rlc, R2 = H, F, Cl, etc.; R3 = H, OH, alkyl, etc.; R4 = (un)substituted aryl, heterocyclyl, cycloalkyl; R5 = (un)substituted aryl, heterocyclyl, cycloalkyl; R6a, R6b = H, alkyl], useful in inhibiting the reuptake of serotonin, antagonizing the 5-HT1A receptor and antagonizing the 5-HT2A receptor, and therefore useful in treating depression, were prepd. and formulated. E.g., a multi-step synthesis of the title compd. II was given. Compds. I are effective at 20-25 mg/day.

II

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2003 ACS

AN 2000:15012 CAPLUS

DN 132:64175

TI Preparation of piperidine derivatives having effects on serotonin related systems

IN Hertel, Larry Wayne; Kohlmam, Daniel Timothy; Liang, Sidney Xi; Wong, David Taiwai; Xu, Yao-Chang

PA Eli Lilly and Company, USA

SO PCT Int. Appl., 143 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ---------PΙ WO 200000198 A1 20000106 WO 1999-US14732 19990629 AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,

MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 20000106 CA 1999-2336117 19990629 CA 2336117 AA AU 9947266 AU 1999-47266 19990629 Α1 20000117 EP 1999-305095 19990629 20000301 EP 982304 Α1 EP 982304 20021002 В1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO EP 2001-202620 19990629 20011017 EP 1146045 A1 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO 20020702 JP 2000-556783 19990629 JP 2002519323 T2 AT 1999-305095 19990629 AT 225345 20021015 ES 2181366 Т3 20030216 ES 1999-305095 19990629 US 6436964 B1 20020820 US 2000-701406 20001128 PRAI US 1998-91241P Р 19980630 EP 1999-305095 **A3** 19990629 WO 1999-US14732 W 19990629 MARPAT 132:64175 OS GΙ

$$R^2$$
 $X$ 
 $R^6$ ?
 $N$ 
 $CH_2$ 
 $R^3$ 
 $Y-R^5$ 
 $R^1$ ?
 $R^1$ ?
 $R^1$ ?
 $R^6$ ?

The title compds. [I; X = O, S, SO, SO2, NR; Y = CO, CH(OH), CH2, etc.; n = 1-4; R = H, alkyl; R1a, R1b, R1c, R2 = H, F, Cl, Br, etc.; R3 = O, OH, alkyl, etc.; R4 = (un)substituted aryl, heterocyclyl, cycloalkyl, etc., R5 = (un)substituted aryl, heterocyclyl, cycloalkyl, etc., R6a, R6b = H, alkyl] and their pharmaceutically acceptable salts, useful for inhibiting the reuptake of serotonin, antagonizing the 5-HT1A receptor and antagonizing the 5-HT2A receptor, and therefore useful in treating depression, were prepd. and formulated. E.g., a multi-step synthesis of tetrahydropyridine II.oxalate, was given. In general, compds. I are effective at 1-200 mg/day.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 18 OF 18 CAPLUS COPYRIGHT 2003 ACS
L8
AN
     2000:15008 CAPLUS
DN
     132:78467
     Preparation of pyrrolidine and pyrroline derivatives having effects on
TI
     serotonin related systems
     Hertel, Larry Wayne; Xu, Yao-chang
IN
     Eli Lilly and Company, USA
PΑ
SO
     PCT Int. Appl., 113 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
                      KIND
                            DATE
                                           APPLICATION NO.
                                                             DATE
     PATENT NO.
                                           _____
                            _____
                            20000106
                                           WO 1999-US14881 19990629
PΙ
     WO 200000196
                      A1
            AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ,
             MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           CA 1999-2334897 19990629
     CA 2334897
                       AΑ
                            20000106
                                           AU 1999-48501
     AU 9948501
                       A1
                            20000117
                                                             19990629
                                           EP 1999-932127
     EP 1100501
                       A1
                            20010523
                                                             19990629
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,
             SI, LT, LV, FI, RO
                            20020702
                                           JP 2000-556781
                                                             19990629
     JP 2002519321
                       T2
     US 6353008
                       B1
                            20020305
                                           US 2000-701361
                                                             20001128
PRAI US 1998-91204P
                       Ρ
                            19980630
                       W
                            19990629
     WO 1999-US14881
     MARPAT 132:78467
OS
GI
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$$R^2$$

$$X \qquad R6? \qquad CH_2 \qquad R^3 \qquad Y-R5$$

$$R^1? \qquad R^1? \qquad R^6?$$

AB The title compds. [I; X = O, S, NR, SO, SO2; Y = CO, CH(OH), CH2, etc.; n = 1-4; R = H, alkyl; R1a, R1b, R1c, R2 = H, F, Cl, etc.; R3 = H, OH, alkyl, etc.; R4 = (un)substituted aryl, heterocyclyl, cycloalkyl; R5 =

Ι

(un) substituted aryl, heterocyclyl, cycloalkyl; R6a, R6b = H, alkyl] which inhibit the reuptake of serotonin, antagonize the 5-HT1A receptor and antagonize the 5-HT2A receptor, and therefore are useful in the treatment of depression, were prepd. and formulated. Thus, treatment of 3-(2-pyridyl)-4-cyclohexyl-4-keto-butyraldehyde ethylene ketal with 3N HCl followed by addn. of Na2SO4 and 3,4-dihydro-3-(7benzothiophenyl)pyrrolidine in CH2Cl2, and then NaBH(OAc)3 afforded 24%

II. Compds. I are effective, in general, at 1-200 mg/day. THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 1

ALL CITATIONS AVAILABLE IN THE RE FORMAT